Astronautics Corporation of America

4” MULTIFUNCTION COLOR DISPLAY (MFCD)

4” MFCD

This Multifunction Color Display Unit (MFCD) is an Active Matrix Liquid Crystal Display with a useable screen size of 4” x 4”. The MFCDs are designed primarily for display of navigation, sensor, tactical weapon, and aircraft systems status displays where accuracy, reliability, and high resolution are requirements. The full color (RGB) and monochrome capabilities also allow the MFCD to be utilized as a Sensor and Digital Map Display. This 4” MFCD is manufactured for the F-5, Kfir, MiG-21, and other advanced fighter and trainer aircraft

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Astronautics 4” Multifunction Color Display features include:

- Active Matrix Color Liquid Crystal Display
- High Brightness, High Contrast
- 20 Multifunction Keys
- Brightness Control
- Contrast Enhancement Filter
- Night Vision Goggle (NVG) Compatibility
- Selectable Brightness Modes: Day, Night, Auto
- No Geometric Distortion or Linearity Error
- Modular, Rugged Construction
- Designed to Military Standards
- Built-in-Test (BIT)
- Accepts RGB and monochrome Video
- Video Source Selectable via RS-422 or Electrical Discretes
- 256 Shades of Gray

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4” Multifunction Color Display (MFCD)

OPTICAL SPECIFICATIONS	
Useable Display Area	4.0 x 4.0 Inch
Pixel Resolution	524 x 524
Display Luminance	200 fL to 0.05 fL
Display Luminance Uniformity	Within 15%
Geometric Distortion	None Visible
Contrast Ratio	3.27 in 10,000 fL (high ambient) 5:1 minimum (low ambient)
Colors	256 Shades of Gray 16.7 million Colors NVG Compatible
INTERFACE SPECIFICATIONS	
Typical Interfaces Available	RS-170 Monochrome or RS-170A RGB Triax Video Connectors RS-422 and Discrete Bezel and BIT Interface
Analog	R,G,B with Sync on Green
Video Timing	Per RS-170
Input Impedance	-75 OHMS ±2%
MECHANICAL SPECIFICATIONS	
Chassis	One Piece Cast-Aluminum
Envelope	5.0” x 5.0” x 10.0” (Chassis) 5.62” x 5.62” (Bezel)
Weight	Under 10 Pounds
Rocker Switches or Knobs	Available on Bezel
POWER SPECIFICATIONS	
Power	28 Volt DC Power per Mil-Std-704 50 Watts Power Consumption (AVG) Display Operation Unaffected by Input Voltage Variations
RELIABILITY/MAINTAINABILITY	
Built-in-Test (BIT)	Automatic Fault Monitoring Identification of Failed CCA via RS-422
Reliability	6,000 hours MTBF (per Mil-Std-217D)
Maintainability	30 Min. MTTR
ENVIRONMENTAL SPECIFICATION	
Temperature	-40°C to +55°C Operating (continuous) +71°C Intermittent
Altitude	0 to 31,000 Feet
Vibration	5g, 50-2000 Hz
Shock	15g, 11 milliseconds
EMI/EMC	Per DO-160C
Humidity	Up to 100% Condensing

FOR MORE INFORMATION ON THIS OR ANY OF OUR OTHER PRODUCTS/SYSTEMS PLEASE CONTACT:
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OR VISIT OUR WEBSITE www.astronautics.com